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SCIENCE SPOTLIGHT

# Financial Hardships for Patients Receiving Chemotherapy for Colon Cancer

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Despite a general awareness that cancer treatment costs are rising, relatively little is known about possible long-term economic hardships for patients with cancer or the role of finances in treatment compliance.

Seeking to identify factors that may predispose patients to financial hardship and assess the impact of these factors on treatment compliance, Drs. Veena Shankaran and Scott Ramsey, Public Health Sciences Division, recently assessed the personal financial impact of colon cancer treatment among patients diagnosed with stage III colon cancer between 2008 and 2010. Patients were identified from the Cancer Surveillance System in western Washington, and all patients had received surgical resection and at least one dose of postoperative chemotherapy.

Given a lack of validated questionnaires to assess the financial experiences of patients with cancers, the authors developed a comprehensive, multidimensional survey to assess employment and income changes, insurance status and insurance denials for specific services, copayments and deductibles, monthly expenses, perceived financial hardship, and treatment adherence. The primary outcomes of interest were i) treatment-related financial hardship, defined as selling, refinancing or obtaining a second mortgage on one's home, accruing debt, borrowing money from friends or family, or experiencing a decline in personal income of 20% or more, and ii) economically motivated treatment nonadherence.

Of 555 eligible participants who were contacted by mail, 287 responded (mean age: 59.5 years, 51.4% men). Responders and non-responders were similar with respect to demographic and treatment-related characteristics; however, responders were more likely to be married and live in a rural county. Although 96% of responders were insured, 104 (38%) responders reported at least one treatment-related financial hardship, with 62 (23%) reporting the accrual of treatment-related debt averaging \$26,860.

Responders younger than 50 years, those with an annual household income of \$30,000 or less, and those on work disability, unemployment or a leave-of-absence were the most likely to experience financial hardship and report treatment nonadherence; however, only a relatively small proportion of

patients reported skipping medication doses (5.4%) or refusing recommended treatment (7.2%) because of cost concerns.

An additional 27% of patients reported other financial impacts of their cancer treatment, such as selling stocks or investments, or using savings or retirement accounts, which were not sufficient to meet the criteria for financial hardship.

When asked to rate their perception of the financial burden of cancer treatment on a five-point Likert scale (1=very low burden, 5=very high burden), 31% of responders reported high or very high financial burden.

In future studies, Ramsey and Shankaran plan to assess patients prospectively for treatment-related financial changes and correlate these changes with health-related quality of life. Additionally, a deeper understanding of patient decision-making about high cost drugs will be important in understanding the various factors that contribute to cancer patients' financial experiences.

[Shankaran V, Jolly S, Blough D, Ramsey SD.](#) 2012. Risk factors for financial hardship in patients receiving adjuvant chemotherapy for colon cancer: A population-based exploratory analysis. *Journal of Clinical Oncology* 30:1608-14.



Photo by Dean Forbes

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